



SUBJECT DATASHEET

I. SUBJECT DESCRIPTION

1. GENERAL DATA

1.1. Subject name (in Hungarian, in English)

Final Project A • Final Project A

1.2. Neptun code

BMEGEGINKDA

1.3. Type

study unit based on individual work, aided by consultation, without contact hours

1.4. Course types and number of hours (weekly / semester)

course type	number of hours (weekly)	nature (connected / stand-alone)
lecture (theory)	-	-
exercise	12	individual
laboratory exercise	-	-

1.5. Type of assessments (quality evaluation)

mid-term grade

1.6. ECTS

15

1.7. Subject coordinator

name: Dr. Kerényi György Zsolt
post: associate professor
contact: kerenyi.gyorgy@edu.bme.hu

1.8. Host organization

Department of Machine and Product Design (<http://www.gt3.bme.hu>)

1.9. Course homepage

<http://www.gt3.bme.hu>

1.10. Course language

hungarian, english

1.11. Primary curriculum type

mandatory

1.12. Direct prerequisites

Strong prerequisite:	-
Weak prerequisite:	-
Parallel prerequisite:	-
Milestone prerequisite:	at least obtained 55 ECTS
Excluding condition:	-

(the subject cannot be taken if you have previously completed any of the following subjects or groups of subjects)

2. AIMS AND ACHIEVEMENTS

2.1. Aim

The course aims to acquire the techniques used in engineering practice related to machine design and product design within the framework of the diploma design project to acquire an independent task-solving practice. He/she demonstrates his/her maturity for solving engineering tasks to a high standard during the diploma design task by solving and documenting tasks related to various topics. He/she carries out independent engineering work under the supervisor's guidance and the plant consultant during the diploma planning.

2.2. Learning outcomes

Competences that can be acquired by completing the course:

A. Knowledge

- With the help of his/her supervisor, he/she identifies the main content elements of the dissertation thesis to be written about a chosen segment of the field.
- Gathers the literature with the help of the knowledge acquired during his/her training.
- With the help of his/her prior knowledge, he/she systematizes the new knowledge gained during the literature reading.
- He/she has the knowledge needed to analyze the literature reviewed.
- He/she is aware of the professional knowledge required to perform the tasks in the job description at the appropriate level.
- Identifies challenges that would require a departure from the terms of reference or an extension of the scope of the tasks.
- He/she knows to consult effectively with his/her supervisor.
- He/she has the knowledge to propose changes to the terms of reference if necessary.
- He/she is aware of the professional knowledge based on which he/she can propose the formulation of the points of the task with the help of his/her supervisor.
- Names the content of each chapter of the diploma project, which it can formulate based on prior knowledge.

B. Ability

- Understands the tasks in the job description correctly.
- Specifies the correct order in which the tasks detailed in the job description are performed.
- Identifies the range of literature that still needs to be reviewed to prepare his/her dissertation properly.
- Describes the relevant knowledge found in the literature in his/her dissertation.
- Analyzes the literature reviewed in the light of what has been learned previously.
- Applies the professional knowledge acquired during his/her studies so far during elaborating his/her diploma thesis.
- Adequately addresses emerging challenges that would require deviating from the job description or expanding the tasks.

- In his/her work, he/she prepares the results of the literature reviewed or the analysis carried out to make the consultations with his/her supervisor effective.
- He/she proposes to his/her supervisor to modify the dissertation's dissertation if the need arises.
- After completing the work, make suggestions for ways forward.

C. Attitude

- He/she constantly monitors his/her work, results and conclusions with the help of his/her supervisor and consultant.
- Expands his/her knowledge of his/her chosen field by continuously acquiring knowledge.
- Open to using information technology tools and acquiring new skills when needed.
- Strives to get to know the error-free and routine use of the tool system necessary for solving the technical problems that arise.
- Develops his/her ability to provide accurate and error-free problem solving, engineering precision and accuracy.

D. Independence and responsibility

- Collaborates with his/her supervisor and consultant, as well as his/her fellow students as needed, to expand his/her knowledge.
- During the preparation of the dissertation, he/she accepts the well-founded professional and other critical remarks.
- He/she constantly cooperate with his/her supervisor, consultant, and, if necessary, fellow students while elaborating his/her diploma thesis.
- With his/her knowledge, he/she makes a responsible, well-founded and independent decision based on his/her analysis.
- Feels a responsibility for the sustainable use of the environment and present and future generations.

2.3. Teaching methodology

A subject is a unit without contact lessons. The student works independently on a complex task during the semester. He/she tries to solve the problems that arise during the solution of the task on his/her own. He/she uses the help of his/her supervisor and plant consultant only when making strategic decisions. During the solution of the task, the student comes to the solution of the task with the help of the knowledge and skills acquired during the training.

2.4. Support materials

a) Textbooks

-

b) Lecture notes

-

c) Online materials

-

2.5. Validity of the course description

Start of validity:	2021. February 1.
End of validity:	2026. January 31.

II. SUBJECT REQUIREMENT

3. ACHIEVEMENT CONTROL AND EVALUATION

3.1 General rules

The supervisor determines the evaluation of the performance based on the prepared diploma project. The diploma project is determined based on elaborating the topic, the standard of the performed engineering, the quality of the processing of the literature related to the topic, the formal, aesthetic appearance, division and logical structure of the dissertation. According to the current Faculty Regulations, the aspects of the scoring must be made based on the evaluation form according to the current Faculty Regulations.

3.2 Assessment methods

A. Detailed description of mid-term assessments

Mid-term assessment

type: formative assessment, project-based, complex

count: 1

purpose, description: The supervisor determines the evaluation of the performance based on the prepared diploma project. The diploma project is determined based on elaborating the topic, the standard of the performed engineering, the quality of the processing of the literature related to the topic, the formal, aesthetic appearance, division and logical structure of the dissertation. According to the current Faculty Regulations, the aspects of the scoring must be made based on the evaluation form according to the current Faculty Regulations.

B. Detailed description of assessments performed during the examination period (if relevant)

Elements of the exam:

1. written partial exam

-

2. oral partial exam

-

3. practical partial exam

-

4. inclusion of mid-term results

-

3.3 The weight of mid-term assessments in signing or in final grading

identifier	weight
Mid-term assessment	100 %

3.4 The weight of partial exams in grade (if relevant)

type	weight
written partial exam	0 %
oral partial exam	0 %
practical partial exam	0 %

inclusion of mid-term results	0 %
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3.5 Determination of the grade

grade • [ECTS]	the grade expressed in percents
very good(5) • Excellent [A]	above 90%
very good(5) • Very Good [B]	85% .. 90%
good(4) • Good [C]	70% .. 85%
satisfactory(3) • Satisfactory [D]	55% .. 70%
sufficient(2) • Pass [E]	40% .. 55%
insufficient(1) • Fail [F]	below 40%

The lower limit specified for each grade already belongs to that grade.

3.6 Attendance and participation requirements

At least 70% the exercises (rounded down) must be actively attended.

3.7 Special rules for improving, retaken and replacement

The special rules for improving, retaken and replacement shall be interpreted and applied in conjunction with the general rules of the CoS (TVSZ).

Can the submitted and accepted partial performance assessments be resubmitted until the end of the replacement period in order to achieve better results?

NO

Taking into account the previous result in case of improvement, retaken-improvement:

new result overrides previous result

The way of retaking or improving a partial assessment for the first time:

partial assesment(s) in this group cannot be improved or repeated, the final result is assessed in accordance with Code of Studied 122. § (6)

3.8 Study work required to complete the course

Activity	hours / semester
participation in contact classes	168
mid-term preparation for practices	84
elaboration of a partial assessment task	30
additional time required to complete the subject	168
summary	450

3.9. Validity of subject requirements

Start of validity: 2021. February 1.

End of validity: 2026. January 31.

4. ADDITIONAL INFORMATION

4.1 Primary course

The primary (main) course of the subject in which it is advertised and to which the competencies are related:

4.2 Link to the purpose and (special) compensations of the Regulation KKK

This course aims to improve the following competencies defined in the Regulation KKK>

a) knowledge

- Student has the knowledge of the theories and contexts of fundamental importance in the field of engineering and of the terminology which underpins them.
- Student has the detailed knowledge and understanding of the methods of knowledge acquisition, data collection, ethical constraints and problem-solving techniques in the technical field.
- Student has the knowledge and understanding of computer modelling and simulation tools and methods relevant to the field of engineering.

b) ability

- Student has the ability to apply the theories and related terminology in an innovative way when solving problems in a given field of engineering.
- Student has the ability to apply innovative methods of knowledge acquisition and data collection to solve specific technical problems in student's field of specialisation.
- Student has the ability to deal with problems creatively, to solve complex problems in a flexible way, and to engage in lifelong learning and commitment to diversity and value-based approaches.

c) attitude

- Student seeks to contribute to the development of new methods and tools in the field of engineering. A deepened sense of vocation.
- Student is committed to high quality work and sets an example to student's colleagues in this respect.

d) independence and responsibility

- Student has the ability to work independently on engineering tasks.
- Student takes initiative in solving technical problems.
- Student acts independently and proactively in solving professional problems.

4.3 Prerequisites for completing the course

Knowledge type competencies

(a set of prior knowledge, the existence of which is not obligatory, but greatly facilitates the successful completion of the subject) | -

Ability type competencies

(a set of prior abilities and skills, the existence of which is not obligatory, but greatly contributes to the successful completion of the subject) | -